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ENERGY PROBLEMS IN RUSSIA

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After the break-up of the USSR energy problems that had predominated before, such as high power inputs of the economy, obsolete equipment, ever increasing costs of energy production and the problem of eliminating the consequences of the Chernobyl catastrophe, were supplemented with new and even more challenging issues:

- a reduction in coal sources due to the segregation of Caraganda and Donets Basins;
- a slump in coal and oil production;
- a threat of the disintegration of the Common Power System;
- an introduction of fees for the gas transit through the Ukraine;
- difficulties with power supplies in the regions that previously got fuel and energy from the Ukraine, e.g. Northern Caucasia.

For the forthcoming decade the priority in Russian energy programme is given to gas production, which has already doubled by 2010.

The usage of renewable power sources and production of pollution-free electric power with the help of natural phenomena is one of the most important tasks for the future.

Using oil, coal and other nonrenewable resources to generate electrical energy entails two major problems:

1) depletion of natural resources;
2) environmental pollution.

Prices for energy are constantly rising and the power shortage is being experienced all over the world. Cheap energy has become a thing of the past. Russia is often envied for its plentiful natural resources and reproached with their ineffective utilization. With slightly over 2% of the world population, Russia possesses 17% of the world's supply of carbonic fuel, including 35% of natural gas, more than 30% of coal, 10% of oil, 8% of uranium, 50% of diamonds, 25% of nickel, and 17% of tin.

The territory of Russia is also abundant with renewable energy sources: its forests make up 22% of all the world's forests.

By water supply Russia is the second after Brazil.

On the instructions of the President, the Russian government is devising the fifth energy programme with a view of becoming one of the leading energy producers.

Global power engineering is a core driving force of the social and economic progress now, and Russia is becoming the main power supplier to all the countries, including the USA.

There is an energy deficiency in many countries, which hinders the growth of their economies, welfare and the average life expectancy.

The continual population upsurge, the increase in welfare, and the industrialization of production and agriculture during the last century redoubled energy consumption every 40 years, coupled with the simultaneous rise in costs.

Because of the increasing costs of producing and transporting energy to consumers, the tariffs for energy are getting significantly higher and putting pressure on everybody to start thinking of energy saving – the thing being widely discussed, but having driven little action yet.

Reforms in Russian electrical power industry, being witnessed by our contemporaries, are quite well-grounded.

In the 1990s, in a period of a deep recession in Russia the volume of consumed electrical energy significantly dropped, whereas the process of capacity renovation was almost ceased.

By 1997 the industry could generally be characterized as follows:

1. By technical indicators, Russian power companies were lagging far behind their competitors from the developed countries.

2. There was no stimulus for the increased efficiency, rational production planning and power consumption, as well as for energy saving.

3. In some regions there were interruptions in energy supply, the power industry was in crisis, and there existed a high probability of serious accidents.

4. The payment discipline was lacking.

All that called for the reorganization of the power industry, which would provide incentives for the increased efficiency of power companies.

In 1998, after A.Tchubais was designated as the chairman of the JSC «Common Power System of Russia», a policy of market changes in the industry was adopted.

Russian fuel and energy complex has always played an important role in the national economy. In the years of reformation it has even gained in significance due to production setbacks in other industries. Over the last decade, the fuel and energy complex has been satisfying the national needs for power, thus helping to preserve the country's energy independence. At present the period of business decline is over, and there is an increase in the production of gas, oil and coal, power generation, and the volume and quality of oil refining. As a result of structural changes, liberalization and privatization, the production units of the fuel and energy complex have to a great extent adapted to the market methods of management. Due to the carried out reorganization of the coal industry, its economic efficiency has risen, and unprofitable collieries lacking in prospects have been closed out. Reforms of power industry and housing and communal services have been initiated. The basic regulation measures for the energy sector of the economy have been formulated, including the issues of resource usage, taxation and pricing.

Nowadays the fuel and energy complex is one the most stable production complexes of Russian economy. It greatly influences the current state and development prospects of the national economy, accounting for about 1/4 of the GDP, 1/3 of the industrial production volume and revenues of the consolidated budget of Russia, 1/2 of revenues of the federal budget, exports and currency inflows.

At present Russian economy is characterized by high power intensity, which is 2-3 times higher than the energy intensity of developed countries. The reasons for such a situation, apart from severe climatic conditions and the vast territory, are the long-established structure of the industrial production and growing technological backwardness of power-consuming industries and housing and communal services, as well as the underestimation of resource costs, above all gas costs, not inducing energy saving.The extent to which the energy efficiency will be improved will predetermine the long-term development perspectives for not only the power industry, but the whole national economy of the Russian Federation. An orientation towards the power-consuming growth poses a threat of the conservation of technological backwardness and the unsatisfied internal demand for energy, which can only be met by the expansion of imports and (or) limitation of exports. Therefore, the aim of the state policy should be the implicit achievement of the intended indices of the energy efficiency growth with the help of a wide range of incentives. These incentives should ensure:

1. the structural reorganization of Russian economy in favour of less energy-consuming services and processing industries;

2. the realization of potential technological energy saving.

So as to intensify the energy saving the following measures are required: a reasonable, economically sound increase in domestic prices for energy sources at a pace acceptable for consumers; a gradual elimination of cross-subsidizing tariffs, especially in the power industry; a further reformation of housing and communal services. Meanwhile the effective price regulation is a necessary, but not sufficient condition of energy saving intensification. It's crucial to introduce the whole system of legal, administrative and economic measures that would stimulate an efficient energy usage.

The priorities of the energy strategy are as follows:

1. full and reliable supplies of energy to private and corporate consumers at moderate prices that would also stimulate energy saving; decrease of risk and prevention of crisis situations;
2. reduction of the costs per unit of produced and used energy due to consumption rationing and the implementation of energy-saving technologies and equipment; elimination of losses during the production, refining, transportation and selling of fuel and energy;
3. a rise in the financial stability and efficiency of the power industry, an increase in labour productivity boosting the social and economic development of the country;
4. minimization of man-caused effects on the environment thanks to economic incentives, improvement of the production structure, introduction of the new methods of production, refining, transportation and selling the goods.

A good solution to the stipulated tasks is the development of a civilized energy market and nondiscriminatory economic relations between the market players themselves, and the market players and the state. While limiting its functions as an active market participant the state should at the same time promote itself as the main regulator of market relations.

The major mechanisms of state regulation in the field of fuel and energy production cover the following:

1. creating a favourable business environment, including the coordinated tariff, tax, customs, antimonopoly regulation and institutional changes in the fuel and energy complex;
2. increasing the efficiency of state property management;
3. introducing a system of promising technical regulations, national standards and norms that make the process of industry development more manageable and induce energy saving;
4. stimulating and supporting the strategic initiatives of the market agents in the fields of investment, innovations and energy saving.